AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-3. **(Canceled)**

4. **(Currently amended)** A transmission system for combining ~~the~~ rotational velocities from a first and a second rotating shaft and transmitting ~~the~~ a combined sum of the rotational velocities to an output shaft, said first shaft being driven at a rotational velocity V, a gear system interconnecting said first and second rotating shafts and for driving the second rotating shaft at a rotational velocity which is approximately .5V, a clutch associated with each of said rotating shafts, each of said clutches having a first state in which rotary motion is transmitted as an output, and a second state in which no rotary motion is transmitted, a first differential gear box receiving the rotary motion outputted by one or more of said clutches, and transmitting rotary motion to said output shaft, said output shaft being driven by said differential gear box at a rotational speed which is approximately equal to: 0, if the clutches associated with said first and second rotating shafts are in said second state; V, if the clutch associated with said first rotating shaft is in said first state and the clutch associated with said second rotating shaft is in said second state; .5V, if the clutch associated with said first rotating shaft is in said second state and the clutch associated with said second rotating shaft is in said first state; or 1.5V, if the clutches associated with said first and second rotating shafts are in said first state.

5. (Currently amended) ~~The transmission system of claim 4~~ **A transmission system for combining rotational velocities from a first and a second rotating shaft and transmitting a combined sum of the rotational velocities to an output shaft, said first shaft being driven at a rotational velocity V, a gear system interconnecting said first and second rotating shafts and for driving the second rotating shaft at a rotational velocity which is approximately .5V, a clutch associated with each of said rotating shafts, each of said clutches having a first state in which rotary motion is transmitted as an output, and a second state in which no rotary motion is transmitted, a first differential gear box receiving the rotary motion outputted by one or more of said clutches, and transmitting rotary motion to said output shaft, said output shaft being driven by said differential gear box at a rotational speed which is approximately equal to: 0, if the clutches associated with said first and second rotating shafts are in said second state; V, if the clutch associated with said first rotating shaft is in said first state and the clutch associated with said second rotating shaft is in said second state; .5V, if the clutch associated with said first rotating shaft is in said second state and the clutch associated with said second rotating shaft is in said first state; or 1.5V, if the clutches associated with said first and second rotating shafts are in said first state**, including a third rotating shaft, said gear system interconnecting said first, second and third rotating shafts for driving the third rotating shaft at a rotational velocity which is approximately .25V, a clutch associated with said third rotating shaft and a second differential gear box, said first differential gear box receiving ~~the~~ **an** output from the clutches associated with the first and second rotating shafts, and the second differential gear box receiving ~~the~~ **an** output

from the clutch associated with said third rotating shaft and ~~the~~ an output from said first differential gear box, said output shaft being driven by said ~~first and~~ second differential gear ~~boxes~~ box within a rotational speed range of approximately 0 to 1.75V, depending on the state of said clutches.

6. **(Previously presented)** The transmission system of claim 5, wherein the rotational speed of said output shaft varies within said rotational speed range, according to the state of said clutches, in increments equal to .25V.

7. **(Currently amended)** ~~The transmission system of claim 4~~ **A transmission system for combining rotational velocities from a first and a second rotating shaft and transmitting a combined sum of the rotational velocities to an output shaft, said first shaft being driven at a rotational velocity V, a gear system interconnecting said first and second rotating shafts and for driving the second rotating shaft at a rotational velocity which is approximately .5V, a clutch associated with each of said rotating shafts, each of said clutches having a first state in which rotary motion is transmitted as an output, and a second state in which no rotary motion is transmitted, a first differential gear box receiving the rotary motion outputted by one or more of said clutches, and transmitting rotary motion to said output shaft, said output shaft being driven by said differential gear box at a rotational speed which is approximately equal to: 0, if the clutches associated with said first and second rotating shafts are in said second state; V, if the clutch associated with said**

first rotating shaft is in said first state and the clutch associated with said second rotating shaft is in said second state; .5V, if the clutch associated with said first rotating shaft is in said second state and the clutch associated with said second rotating shaft is in said first state; or 1.5V, if the clutches associated with said first and second rotating shafts are in said first state, including a third rotating shaft and a fourth rotating shaft, said gear system interconnecting said first, second, third and forth rotating shafts for driving the third rotating shaft at a rotational velocity which is approximately .25V and for driving said fourth rotating shaft at a rotational velocity which is approximately .125V, a clutch associated with said third rotating shaft, a clutch associated with said fourth rotating shaft, a second differential gear box and a third differential gear box, said first differential gear box receiving ~~the~~ **an** output from the clutches associated with the first and second rotating shafts, and the second differential gear box receiving ~~the~~ **an** output from the clutch associated with said third and fourth rotating shafts, and said third differential gear box receiving ~~the~~ **an** output from said first and second differential gear boxes, said output shaft being driven by ~~the~~ **an** output of said third differential gear ~~boxes~~ **box** within a rotational speed range of approximately 0 to 1.875V, depending on the state of said clutches.

8. **(Previously presented)** The transmission system of claim 7, wherein the rotational speed of said output shaft varies within said rotational speed range, according to the state of said clutches, in increments equal to .125V.

9. (**Currently amended**) ~~**The transmission system of claim 4**~~ **A transmission system for combining rotational velocities from a first and a second rotating shaft and transmitting a combined sum of the rotational velocities to an output shaft, said first shaft being driven at a rotational velocity V, a gear system interconnecting said first and second rotating shafts and for driving the second rotating shaft at a rotational velocity which is approximately .5V, a clutch associated with each of said rotating shafts, each of said clutches having a first state in which rotary motion is transmitted as an output, and a second state in which no rotary motion is transmitted, a first differential gear box receiving the rotary motion outputted by one or more of said clutches, and transmitting rotary motion to said output shaft, said output shaft being driven by said differential gear box at a rotational speed which is approximately equal to: 0, if the clutches associated with said first and second rotating shafts are in said second state; V, if the clutch associated with said first rotating shaft is in said first state and the clutch associated with said second rotating shaft is in said second state; .5V, if the clutch associated with said first rotating shaft is in said second state and the clutch associated with said second rotating shaft is in said first state; or 1.5V, if the clutches associated with said first and second rotating shafts are in said first state**, including a third, a fourth and a fifth rotating shaft, said gear system interconnecting said first, second, third, forth and fifth rotating shafts for driving the third rotating shaft at a rotational velocity which is approximately .25V, for driving said fourth rotating shaft at a rotational velocity which is approximately .125V, and for driving said fifth rotating shaft at a rotational velocity which is approximately .0625V, clutches associated with said third, fourth

and fifth rotating shafts, a second, a third, and a fourth differential gear box, said first differential gear box receiving ~~the~~ an output from the clutches associated with the first and second rotating shafts, the second differential gear box receiving ~~the~~ an output from the clutch associated with said third and fourth rotating shafts, the third differential gear box receiving ~~the~~ an output from said first and second differential gear boxes, and the fourth differential gear box receiving ~~the~~ an output from said third differential gear box and ~~the~~ an output from the clutch associated with said fifth rotating shaft, said output shaft being driven by ~~the~~ an output of said fourth differential gear ~~boxes~~ box within a rotational speed range of approximately 0 to 1.94V, depending on the state of said clutches.

10. **(Previously presented)** The transmission system of claim 9, wherein the rotational speed of said output shaft varies within said rotational speed range, according to the state of said clutches, in increments equal to .0625V.